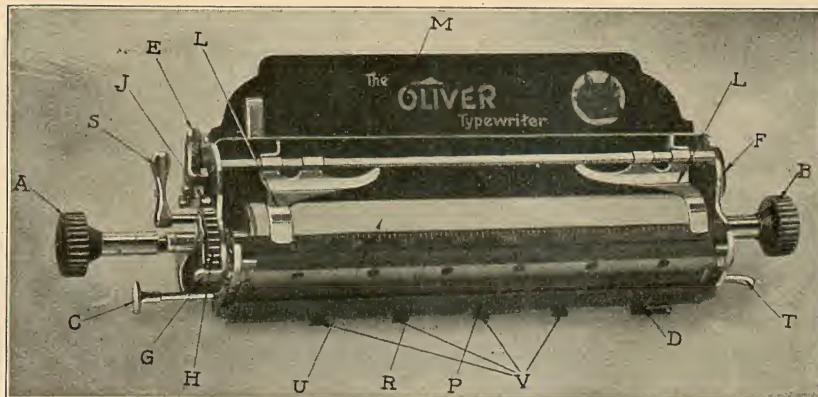
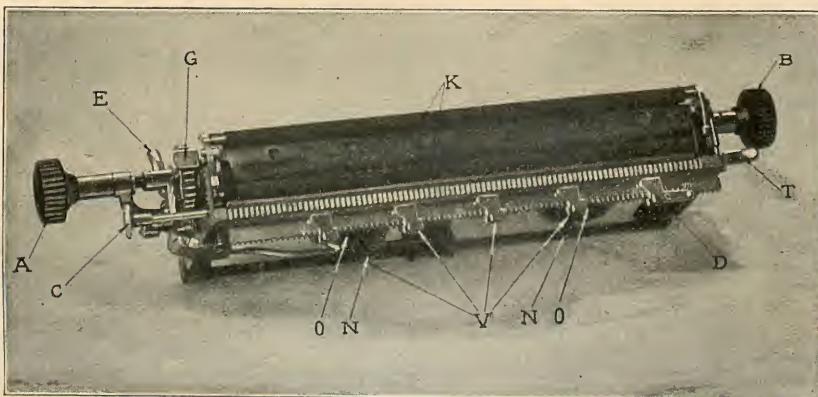


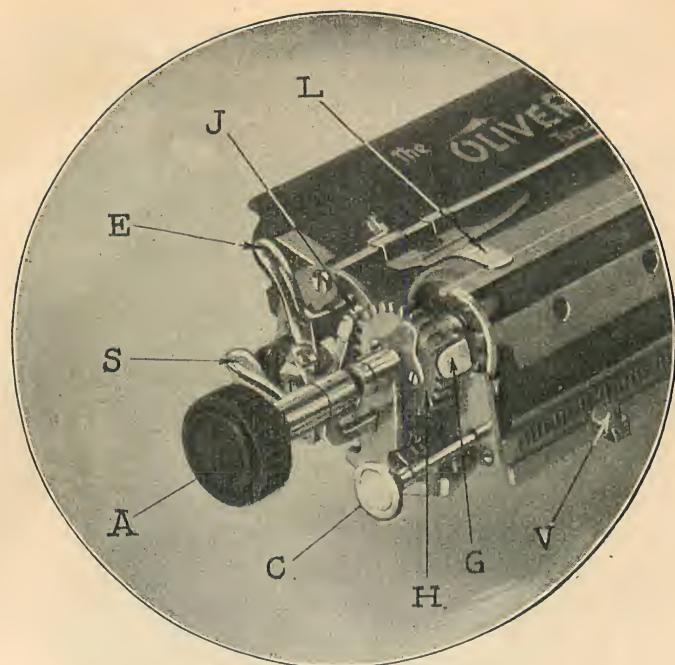
OLIVER
INSTRUCTION
BOOK

CARRIAGE

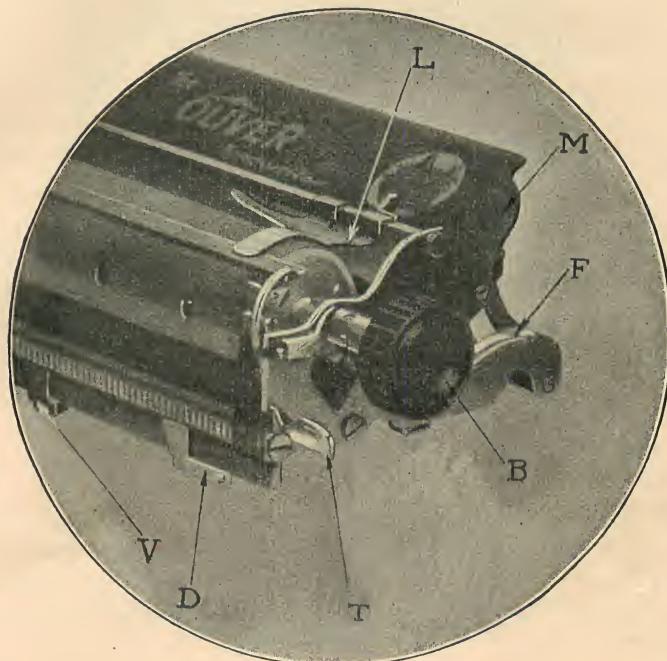


A. Left-Hand Thumb-Wheel.	K. Upper and Lower Front Feed-Rolls.
B. Right-Hand Thumb-Wheel.	L. Paper-Fingers.
C. Left-Hand Release-Key. (See T.)	M. Paper-Shield.
D. Right-Hand Marginal-Stop.	N. Carriage-Keeper.
E. Detent-Lever.	O. Carriage-Travelers.
F. Feed-Roll Release-Lever.	P. Rackbar.
G. Single-, Double- and Triple-Space Thumbpiece.	R. Scalebar.
H. Ratchet-Wheel.	S. Feed-Roll Pressure-Lever.
J. Ratchet-Wheel Pawl.	T. Right-Hand Release-Key. (See C.)
	U. Platen.
	V. Tabulator-Stops.





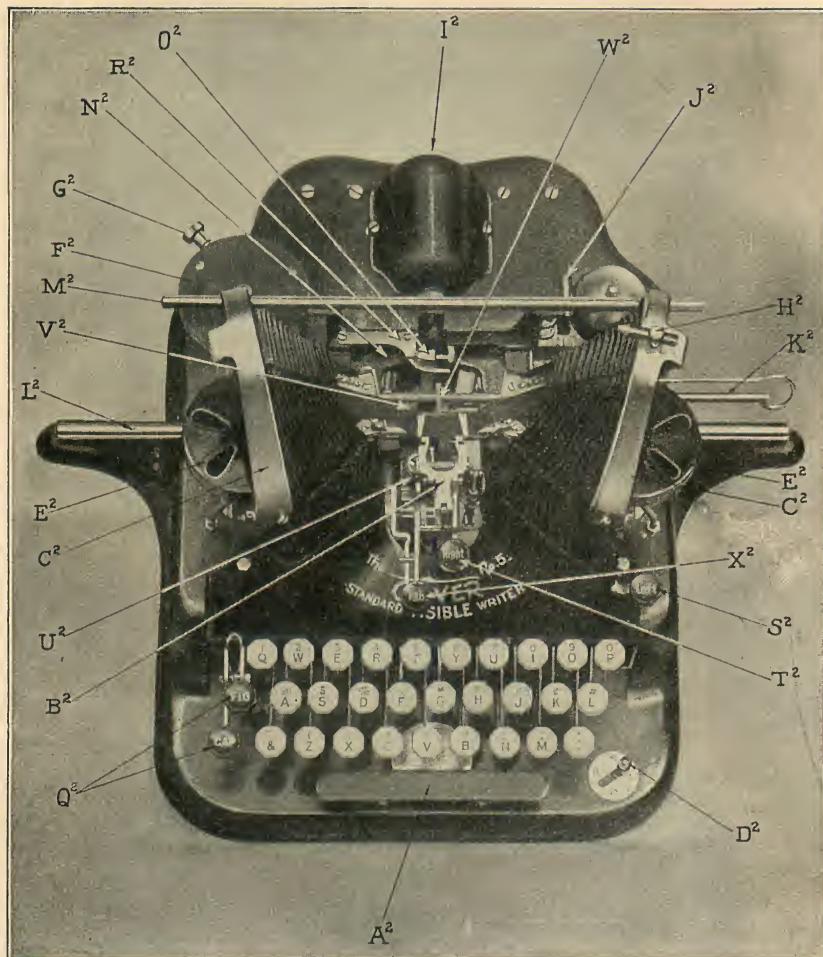
LEFT END OF CARRIAGE



RIGHT END OF CARRIAGE

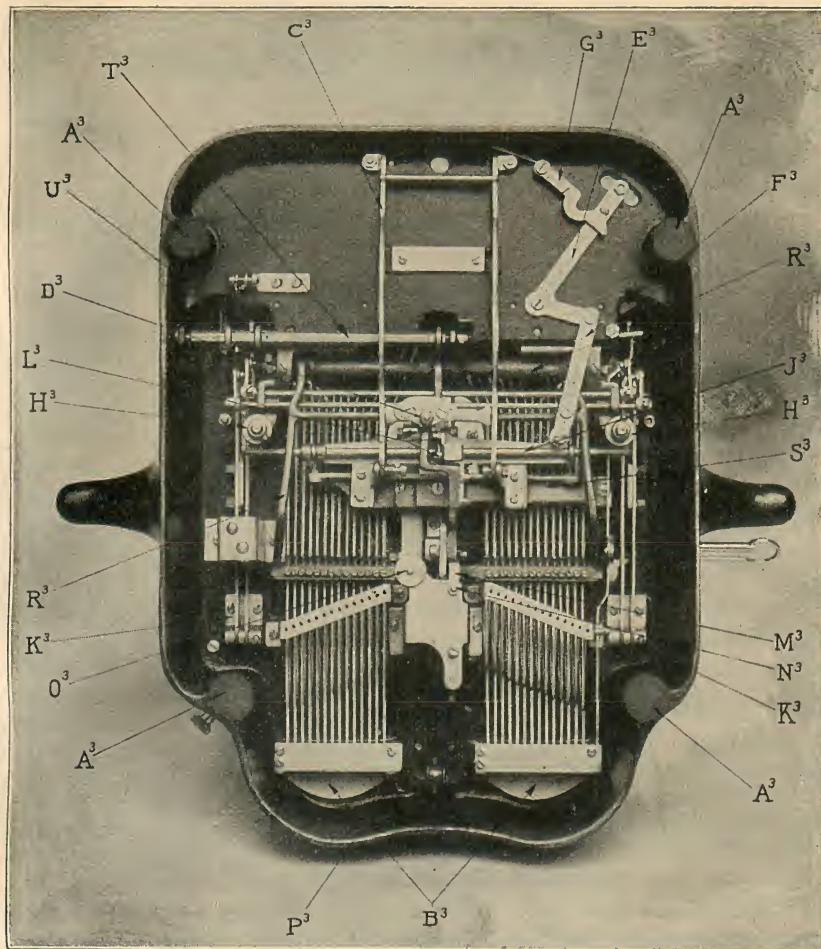
NAMES OF PARTS DESIGNATED BY LETTERS
SHOWN ON OPPOSITE PAGE

TOP VIEW OF MACHINE WITH CARRIAGE REMOVED



A ² . Spacebar.	M ² . Rear Carriage-Rail.
B ² . Ribbon-Carrier.	N ² . Draw-Cord.
C ² . Typebar Shields.	O ² . Draw-Cord Hook.
D ² . Ribbon-Reverse Handle.	Q ² . Shift-Keys.
E ² . Ribbon-Boxes.	R ² . Draw-Cord Hook-Fork.
F ² . Spring-Barrel.	S ² . Left-Hand Marginal-Release Key.
G ² . Spring-Barrel Knob.	T ² . Right-Hand Marginal-Release Key.
H ² . Ruling-Pencil.	U ² . Pinion.
I ² . Tail-Rod.	V ² . Thrust-Block.
J ² . Bell-Tapper.	W ² . Disappearing Indicator.
K ² . Left-Hand Marginal-Stop.	X ² . Tabulator Key.
L ² . Front Carriage-Rail.	

UNDER SIDE OF MACHINE



A3. Rubber Feet.	K3. Shift-Lever Standards.
B3. Key-Lever Standards.	L3. Ribbon-Feed Pawls.
C3. Space-Lever.	M3. Supplemental Spring.
D3. Space-Lever Nut.	N3. Supplemental-Spring Adjusting-Screw.
E3. Ribbon-Shift Connecting-Lever, Crooked.	O3. Universal-Bar Spring Thumb-Nut.
F3. Ribbon-Shift Connecting-Lever, Straight.	P3. Tail-Brace Standard.
G3. Ribbon-Shift Catch.	R3. Universal Bar.
H3. Vertical-Shaft Gear-Wheel.	S3. Worm-Shaft Bracket.
J3. Worm-Shaft.	T3. Rocker-Shaft.
	U3. Shift-Cam Roller.

INSTRUCTIONS FOR USING

The OLIVER Typewriter

The Oliver Typewriter should not be screwed to its baseboard. The machine should rest on its rubber feet. If used in a drop cabinet, the same clamps and bent bolt by which it is fastened to baseboard in shipment may be utilized in fastening it securely to the cabinet, but operators are cautioned against fastening the machine more tightly to the cabinet than is absolutely necessary to insure safety. When not in use the machine should be covered to protect it from dust.

Desk. Have the stand or desk such a height that the keyboard will be on a level with the elbows. You cannot do justice to yourself or the machine if you have it higher. Start right.

Inserting Paper. The paper is inserted by placing it between the two shields (M) at the back of the machine, and then turning it into place with the knob (A) or (B) at either end of the carriage. To insert a large number of sheets for manifolding, or bulky envelopes, raise the lever (F) at the end of the carriage. This throws the feed-roll (K) away from the platen (large rubber roll). After the paper has passed between the platen and the back feed-roll, return the lever (F) to its normal position.

The paper-fingers (L) on top of the platen can be moved any distance to suit any width of paper. They should be set so that their outer edges correspond to the outer edges of the sheet to be written on, and not subsequently disturbed unless a different width of paper is used. After setting these paper-guides, care should be taken to arrange the marginal-stops (D) and (K²) so that the type cannot strike these fingers (L).

Should the paper not be inserted straight, raise the release-lever (F), as above, straighten the paper and return the lever to its normal position.

Stiff cards or extra heavy envelopes may be forced between the lower feed-roll and platen by a slight downward pressure on the little handle (S) on the left-hand end of the carriage and back of ratchet-wheel (H). This pushes the feed-rolls closer to the platen and thus makes it easy to feed cards of unusual thickness.

Marginal-Stops. The marginal-stop (K²) for the left-hand margin will be found at the right, just back of the front carriage-rail (L²). It is released at pleasure by pressure on the key (S²) at the right of the right-hand bank of typebars. To set this stop for any particular margin, turn the loop on the end of the marginal-stop rod (K²) downward until the catch which holds

it in position is released, then move the rod to the right or left as desired. When the required margin is obtained, the rod (K^2) will return automatically to its proper position. Be sure that it does, and that the release-key (S^2) works freely, as otherwise the paper will not feed up when the carriage is pushed to the right for a new line-space.

The marginal-stop (D) for the right-hand margin will be found attached to the lower part of the right-hand end of the carriage and can be moved any distance required. To move to the left, simply slide marginal-stop (D) to the left; to move to the right, depress the stop (D) with the thumb and forefinger and then slide to the right. This stop (D) is released by pressure on the key (T^2) in the center of the machine and directly in front of the ribbon-carrier, and is marked "Right."

Words or figures may be inserted in either margin by releasing the marginal-stops with the release-keys (S^2) or (T^2) as desired.

Carriage. To place the carriage on the machine, first see that the hook (O^2) attached to the end of the draw-cord (N^2) is in the fork of the spring (R^2), so that when the carriage is pushed on the rails from the left-hand side of machine the loop on the right-hand end of the carriage will pick up this hook; then simply slide the carriage on the rails from the left-hand side; in doing so be careful to keep it in horizontal position. It should go on easily and without friction. If an obstruction is encountered, do not use force to overcome it; tilt the end of the carriage up or down until the required level is reached.

To remove the carriage from the machine, depress the release-key (T^2)—which is in the center and directly in front of the ribbon-carrier—with the right hand, push the release-plate (C) with the middle finger on the left hand, and slide the carriage to the left.

Carriage Tension. The carriage is automatically drawn to the left (while machine is being operated) by the spring in the spring-barrel (F^2), and is connected therewith by the cord (N^2) by means of the hook (O^2).

Pushing the carriage to the right naturally winds this spring and gives the tension necessary to draw it back again. If for any reason the carriage is not properly connected with the spring, or if through failure to replace carriage properly, or from some other cause, this spring has become unwound, the carriage movement will not respond to the escapement.

Directions for placing carriage on machine and connecting it with hook (O^2) will be found under heading "Carriage."

The carriage tension is increased or decreased by turning the knob (G^2).

Too much tension is as bad as too little. Do not interfere with it unless absolutely necessary.

Platen Movements and Line Spacing. The platen (large rubber roll) is turned automatically for line spacing by pushing the carriage to the right against the marginal-stop (K^2) by pressure on the upper knob (A) at the left of the carriage. The carriage should be pressed easily but firmly. A slight resistance will be noticed as it gets within an inch or so of the margin, and it should be pushed beyond this point, as this resistance is occasioned by the turning of the platen, and unless pushed the whole distance the proper line spacing will not be obtained. Single-, double- or triple-line spacing is secured by raising or pulling out the thumbpiece (G), which will be found at the left end of the carriage in front of the ratchet-wheel (H), and moving it up or down until the required notch, as indicated by its number, is over the pin in the side-plate of carriage under the ratchet-wheel (H).

To push the carriage to the right, without spacing, for a new line, use the lower knob or button (C); or draw the carriage with the right hand by the knob (B). The platen (large rubber roll) can also be turned by the knobs (A) or (B) at either end of the carriage, this being convenient for paragraphing or turning the paper forward or backward greater distances than ordinary spacing.

The free movement of the platen for interlining, filling in ruled blanks, etc., is secured by throwing the lever (E) at the left end of the carriage backward until the pawl (J) is disengaged from the teeth of the ratchet-wheel (H). When the pawl (J) is allowed to reengage with the teeth of the ratchet-wheel (H), the original line is positively secured.

ATTENTION IS ESPECIALLY CALLED to the movement of the platen independent of the notches of the ratchet-wheel (H). This is accomplished by drawing the small lever (E) at the left end of the carriage toward the operator and holding it firmly, thus locking the pawl (J) in the ratchet-wheel, and while thus locked the platen can be turned to any position or line. This is useful in making corrections, interlineations, etc., and is especially valuable because it changes the relation of the wearing surface of the platen (large rubber roll) to the ratchet-wheel (H), **THUS USING THE WHOLE SURFACE OF THE PLATEN** and consequently preventing it from wearing and becoming indented along certain lines.

Carriage Releases. The carriage is moved to the right or left by pressure with the middle finger of the left hand upon the lower button or knob (C) at the left, and is stopped at any given point by placing the first finger of the left hand on the upper button or knob (A) at the same time that the middle finger is removed; or by pressure with the thumb of the right hand upon the right-hand release-key (T), which will likewise permit the carriage to be moved to the right or left. Thus the carriage may be released with either hand at will.

Capitals and Figures. For capitals hold down the key marked "CAP," and for figures hold down the key marked "FIG." Either of these keys may be locked at pleasure by holding it down and drawing the little lever located between them forward so that it locks the key thus held, and released by moving this lever to its upright position.

Ruling. Ruling is accomplished by means of the ruling-pencil (H²). Swing the pencil down until it is in contact with the platen and hold it down with the forefinger of the right hand. Vertical lines are then made by turning the platen backward and forward by means of knobs (A) or (B). Horizontal lines are made by moving the carriage to the right or left as may be desired. (See Appendix.)

Writing in Colors. This is done by placing a small piece of colored carbon or ribbon on the paper and under the disappearing indicator (W²), so that the type will strike it in making an impression.

Ribbon Movement. The ribbon travels from right to left and vice versa, and moves only when the keys or spacebar are struck. The movement of the carriage HAS NO EFFECT on the ribbon in any way. When one spool is full and it is desired to reverse the ribbon, simply move the little handle (D²) that is attached to the base at the right and in front of the operator as the case may require. When this lever is moved so that it rests against the end of the slot marked "R" the ribbon feeds to the right. When the right-hand spool is full the work will become dim, and an extra resistance to the keys will be noticed, and the ribbon will move sluggishly. As soon as this is observed, the lever (D²) should immediately be pushed to the opposite end of the slot, or "L," when the ribbon will travel in the opposite direction.

To turn the ribbon over so as to get additional wear from the unused portion, wait until one spool is empty, and then unclip the ribbon from it and exchange the spools, putting each in the opposite box, and carry the ribbon through and connect it up again. Before removing ribbon from machine, note particularly its general position and the manner in which it is placed in the ribbon-box slots and ribbon-carrier, so that the same position will be obtained when it is replaced on the machine, or when a new ribbon is substituted for it.

To wind the ribbon rapidly, put the little handle (D²) midway between "R" and "L" and turn the milled knurls (on ribbon-spool shafts under the ribbon-boxes) with thumb and finger.

Putting On New Ribbon. Wind the old ribbon on one spool, either left or right, then unclip the ribbon at one end from the metal clasp and empty spool, saving empty spool and clasp, and throw the old ribbon and full spool away. A new ribbon comes wound on its own spool. Place the new spool and ribbon in the box from which the old ribbon has been removed in such a manner that the small pin in the bottom of the ribbon-box will enter the small hole in the spool. The ribbon should feed from the back of box.

Draw the ribbon through the slot in the side of the box, replace cover on the box, fitting it tightly in its place, pass the ribbon across the machine, and fasten on the empty spool by means of the small metal clasp. Pass the ribbon through the slot of this box, and place the spool in its proper position in the box, as in the first instance. Put on the cover, taking care that there is no twist in the ribbon, and that the smaller of the two slots in the ribbon-box cover fits over the small projection in front of the ribbon-box. This brings the wide slot over the point where the ribbon leaves the box, and permits free action.

Pass the top edge of the ribbon into the ribbon-carrier (B²) far enough so that the edge toward the operator will catch in the hooks on the under side of the prongs on carrier (B²). This prevents ribbon from slipping out. Do not let the ribbon enter one box at one angle and the other at another. Both should enter the boxes in the same way, and care should be taken not to crease the ribbon in any manner. Push the little handle (D²) to letter "R" or "L," as the case may require.

IMPORTANT

**WOULD YOU EXPECT ANY MACHINE TO RUN WITHOUT OILING?
THEN WHY RUN THE OLIVER WITHOUT?**

Directions: If the machine is used steadily, a little oil (such as we furnish with each machine) should be applied twice a week to the following places:

The axles and crank-pins of the typebars; the lower part of the escapement where the little tongue plays against the teeth of the escape-wheel; the escape-lever hub and upper and lower bearings of pinion-shaft (U²); the lower part of the connecting-links (uprights which connect typebars with key-levers) where they connect to the key-levers; the axle of the wheel where the tail-rod (I²) runs

through the standard at the rear of the machine; the joints in the ribbon-carrier (B²); the axles of the rollers (O) under the carriage, but *not* the rails on which these rollers travel (rails should be kept clean); the shift-cam roller (U³); the thrust-block (V²); the upper and lower ends of swinging links, which support the rail-frame; and the bearings of all feed-rolls.

In general, constant rubbing of metal surfaces will in time show wear on any piece of machinery, unless reasonable care is used to see that oil is applied to such surfaces occasionally, and that the machine is kept clean and free from gritty accumulations.

Care should always be taken in oiling, as *too much oil is as bad as too little*. All surplus oil should be wiped off thoroughly, for, if left on the machine, it will collect dust.

The properly oiled typewriter operates fifty per cent better than the one that is not given proper attention in this respect, and the work of the operator will be found much more agreeable if the machine is kept in perfect running order. The life of the machine will also be increased and the character of the work benefited.

Oil should be applied to the typebar axles and like wearing surfaces by means of a small brush or toothpick. Do not use an oil-can. Do not get oil on rubber rollers.

Cleaning Type. Pass a stiff brush over the face of the type. If the type are being cleaned while the work is in the machine, place a sheet of paper on top of the work to prevent spatter of type accumulations.

Mimeograph Work. Place ribbon-reverse lever (D²) midway between "R" and "L," so ribbon will not wind, remove ribbon from ribbon-carrier (B²) and catch it down in front of ribbon-carrier, under end nearest operator, or pull ribbon up in the center and catch the loop as above described, so that the type will not strike the ribbon.

Cleaning Machine. Remove carriage from machine, thus leaving every part accessible to brush. Clean and oil and replace carriage. Directions for removing and replacing carriage will be found under heading "Carriage."

To Make Corrections. If for any reason paper has been displaced in machine, or if the paper has been removed from the machine, and it is desired to find an exact spot upon the paper in order to make corrections, the base line of writing may be found by moving the paper upward or downward with the feed-roll knobs (A) or (B), at the same time pulling the lever (E) forward firmly until the line of writing is even with the end of disappearing indicator. Then, if it requires movement to the right or left, in order to obtain the exact position desired, raise the lever (F) and pull the paper sidewise in either direction. It will be noted that the end of pointer (disappearing indicator) indicates the base of the letter. A very little practice will enable the operator to readily find the desired point. The exact lateral position desired may be also determined by having the letter "i" correspond with the scale.

Caution. All machines are in perfect adjustment when they leave the factory, and it is suggested that operators should not attempt alteration in adjustment unless it is absolutely necessary, and that then it would be better to have this adjustment made by a competent mechanic, or, better still, to refer such questions directly to the Company.

APPENDIX

FRictional AND OTHER MOVEMENTS OF THE PLATEN

We frequently find that users of The Oliver neglect to acquaint themselves sufficiently with its several platen movements, consequently this Appendix is added to the regular instructions so that the great advantage of these movements may be called to the particular attention of operators.

AUTOMATIC LINE SPACING

Line spacing is obtained automatically by pushing the carriage to the right as far as it will go (as explained in the foregoing instructions) by pressure on the upper button or knob (A) at the left, or by simply turning the knob (A) or (B) at either end of the carriage. These knobs may be turned in either direction for turning the paper up or down, as may be required.

It will be observed that the platen is held firmly in position for any particular line by means of the pawl (J) when between two teeth of the ratchet-wheel (H); that if the platen is turned so that this pawl (J) passes over one tooth in the ratchet-wheel (H) a single-line space is obtained; over two teeth, a double-line space; and over three teeth, a triple-line space.

In regular work, the pawl (J) automatically passes from tooth to tooth—one, two or three at a time, as desired, corresponding with the position of the thumb-piece (G), as explained on page 7, "Platen Movements." It is suggested that the operator become thoroughly familiar with the automatic line-spacing movement before proceeding further.

FREE MOTIONS—Vertical, Horizontal, Oblique

(a) If the lever (E) is pushed back as far as it will go, it will be seen that the pawl (J) is removed entirely from the ratchet-wheel (H), and consequently has no effect on it in any way. The platen being thus freed can be turned backward or forward any distance. *This is free vertical motion.* Any arbitrary line, no matter where located on the paper, can be reached instantly by simply turning the platen until that line registers with the disappearing indicator or pointer. *All shifting the paper in the machine or around the platen in order to come to a desired point on the paper is avoided.*

(b) By pressing either of the release-keys, (C) or (T), the pinion-wheel is thrown out of contact with the teeth of the rackbar, and the carriage can be pushed to the right or allowed to run to the left any desired distance. *This is free horizontal motion.* Any arbitrary point on any line can be thus reached at once, and again *without touching the paper with the hands.*

(c) It will thus be seen that by turning the knob (A) at the same time that the third finger of the left hand is placed on the release-key (C), the two being operated at the same instant with the same hand, the free vertical and the free horizontal motions are obtained, which constitutes oblique motion of any and every angle. In other words, it is possible to strike any point on the paper, with any character, and that without touching the paper with the hands.

OBLIQUE MOTIONS OF ANY AND EVERY ANGLE

To illustrate the advantages of these oblique motions: Suppose it is desired to fill in the blank lines of an insurance-policy, a deed, mortgage, statement or bill-heading, in which it is necessary to change the printing locality on the paper from one arbitrary place to another, it will be apparent from the above that such arbitrary line can be found on The Oliver in a single instant of time, that the shifting of the paper around the platen to bring the printing-point to some arbitrary place is unnecessary, and that this shifting of the paper is a tedious operation as compared with The Oliver method.

FRictional motion

This, the main subject of this Appendix, called the frictional motion of The Oliver, may be described as the *independent revolving of the platen* while the line-spacing mechanism is *locked*.

The principal object of the frictional motion is to immediately change the base line so that it will be in register with any arbitrary date-line on a printed letter-heading *without shifting the paper in the machine*. It is well to bear in mind that the object is to avoid this shifting of the paper (generally necessary in other typewriters), as it invariably destroys the parallelism of lines. When writing a letter the operator should be able to turn the knob (A) or (B) backward or forward, for the purpose of correction, and come immediately into exact alignment with any previously written line, and, in addition, do it automatically, without guessing at it or closely sighting it.

As in other machines, a letter-heading having a printed date-line should be inserted so that this date-line comes "*somewhere near*" the desired point. Instead of then shifting the paper with the hands to the exact place (by which operation the exact parallelism with which the paper was inserted is destroyed), the little handle (E) should be drawn forward with the index finger of the left hand—this locks the pawl (J) in the teeth of the ratchet-wheel (H). Then, while holding this handle firmly, the paper can be turned by means of the right hand and knob (B), until the arbitrary date-line registers with the point of the disappearing indicator (in center of machine and directly over the paper).

The finger may then be removed from the detent-handle (E) and the platen will be found to be firmly locked so far as this line is concerned, and will line-space automatically *from this line as a base*, and may be turned at will and found in register with the line thus selected.

A RESULTING ADVANTAGE OF THE FRICTIONAL MOTION IS A CONTINUOUSLY SMOOTH PLATEN

It will be observed that, by the use of the frictional motion, the relationship between the platen and the ratchet-wheel is constantly changed. This gives a new wearing surface on the platen, instead of always writing upon it along certain lines.

THE TABULATOR

The tabulator, or column-stop key, is marked "TAB," and is conveniently located in the center of the machine, between the carriage and the keyboard. The lever supporting this key is connected with the escape-pinion and a swinging arrestor (S-1), which brings the carriage to rest at proper position to write columns.



S-1

The right-hand marginal-stop rack, located on the lower front part of carriage, is graduated to correspond with the writing scale. To this stop-rack are attached the regular right-hand marginal-stop and also a number of similarly operated stops (D-1), which may be moved along the rack to any point desired.

When the TAB key is depressed the arrestor rises and the escape-pinion is released from the feed-rack. The draw-cord then pulls the carriage until one of the stops (D-1) comes in contact with the arrestor (S-1). All parts of the column-stop are automatically restored to normal position the instant the finger leaves the TAB key.

When it is desired to begin columns or paragraphs at particular points on the scale, read from the extreme right-hand edge of the stops (D-1) when adjusting them on the rack.

The TAB key should be held down until the carriage comes to rest.

The stops (D-1) may be moved to the left by a slight pressure of the finger on lower right-hand corner, and to the right by grasping them with the thumb and finger and drawing down the lower left-hand corner.

